

Epidemiology and risk estimate (242-246)

242 Mortality from Brain Tumor among Radiological Technologists in Japan:
1969-93

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Previous reports of epidemiological studies of radiological technologists in Japan showed statistically significant high SMRs from brain tumor. The association between exposure to low-dose radiation and mortality from brain tumor had been suggested. Using the follow-up data for 12,195 technologists from 1969 to 1993, we reevaluated the mortality from brain tumor (benign, malignant and unspecified nature types). Vital status and causes of death were ascertained using *Koseki* and death certificates. A total of 9 deaths from brain tumor were observed with 272,043 person-years. SMR from brain tumor was 1.12(95%CI:0.51-2.13). No convincing evidence was found to support the association between low-dose radiation exposure and mortality from brain tumor.

243 Statistical Associations between Radiation Exposure and Cardio-Respiratory
Functions in Radiology Technicians

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Cardio-respiratory functions of 942 Japanese male radiology technicians were compared with the standard values of Japanese people, and were investigated associations with occupational irradiation, cigarette smoking, alcohol drinking and exercising. The number of investigated items was nine. The result of comparisons with Japanese standard values suggested the decrease of cardio-respiratory functions in radiology technicians, but the association between the extent of decreased cardio-respiratory functions and radiation exposure was not significant. The associations with each factor were evaluated by using multiple linear regression model. Smoking associated with two items, drinking associated with four items, exercising associated with two items and irradiation associated with no item. From these results, it is considered that radiation exposure does not associate with cardio-respiratory functions.